

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-53. (Canceled).

54. (New) Particles for use in cold plastic working of metallic materials each of which particles consists of a water sparingly soluble or water insoluble polyvalent metal salt of phosphoric acid as a nucleus and a coating of a metallic soap of the polyvalent metal coating the surface of the nucleus, the polyvalent metal being at least one metal selected from the group consisting of Zn, Fe, Mn, Ni, Co, Mg, Ba, Al and Sn and the metallic soap being formed by reaction of the polyvalent metal salt of phosphoric acid with an alkali metal salt, ammonium salt or water soluble ester of a fatty acid, the particles having two layers.

55. (New) The particles according to claim 54 wherein the average particle size of the polyvalent metal salt of phosphoric acid is 300 μm or less and the proportion of all the metallic soap coatings to all the two-layer particles is 1 to 30 % by mass.

56. (New) The particles according to claim 54 wherein the polyvalent metal salt of phosphoric acid is zinc phosphate.

57. (New) Particles each of which consists of each of the particles according to claim 54 and a further coating of an alkali metal salt, ammonium salt or water soluble ester of a fatty acid coating the surface of the particle, the particles having three layers.

58. (New) The particles according to claim 57 wherein the average particle size of the polyvalent metal salt of phosphoric acid is 300 μm or less, the proportion of all the metallic soap coatings to all the two-layer particles is 1 to 30 % by mass, and the proportion of all the coatings

of the alkali metal salt, ammonium salt or water soluble ester of the fatty acid to all the three-layer particles is 0.1 to 5 % by mass.

59. (New) A powder consisting of the particles according to claim 54, for use in cold plastic working of metallic materials.

60. (New) A powder consisting of the particles according to claim 57, for use in cold plastic working of metallic materials.

61. (New) A suspension for use in cold plastic working of metallic materials wherein the two layer particles according to claim 54 are suspended in water or an aqueous solution of an alkali metal salt, ammonium salt or water soluble ester of a fatty acid, the average particle size of particles of the polyvalent metal salt of phosphoric acid being 20 μm or less, and the proportion of all the metallic soap coatings to all the two-layer particles being 1 to 30 % by mass.

62. (New) A process for preparing the powder according to claim 60 which comprises mixing a water sparingly soluble or water insoluble polyvalent metal salt of phosphoric acid with an alkali metal salt, ammonium salt or water soluble ester of a fatty acid in water at an elevated temperature, and then drying the resulting suspension, the polyvalent metal being at least one metal selected from the group consisting of Zn, Fe, Mn, Ni, Co, Mg, Ba, Al and Sn.

63. (New) A process for preparing the suspension according to claim 61 which comprises mixing a water sparingly soluble or water insoluble polyvalent metal salt of phosphoric acid with an alkali metal salt, ammonium salt or water soluble ester of a fatty acid in water at an elevated temperature, the polyvalent metal being at least one metal selected from the group consisting of Zn, Fe, Mn, Ni, Co, Mg, Ba, Al and Sn.

64. (New) A lubricating coating containing the particles according to claim 54 in an amount of 1% by mass or more.

65. (New) The lubricating coating according to claim 64 whose dry coating thickness is 0.5 to 50 μm .

66. (New) A lubricating coating containing the particles according to claim 57 in an amount of 1% by mass or more.

67. (New) The lubricating coating according to claim 66 whose dry coating thickness is 0.5 to 50 μm .

68. (New) A lubricating coating forming agent for use in cold plastic working of metallic materials wherein particles each of which consists of a water sparingly soluble or water insoluble polyvalent metal salt of phosphoric acid as a nucleus and a coating of a metallic soap of the polyvalent metal coating the surface of the nucleus forming particles of coated polyvalent metal salt of phosphoric acid are suspended in an aqueous solution of a water soluble inorganic salt and/or a water soluble organic acid salt; the polyvalent metal being at least one metal selected from the group consisting of Zn, Fe, Mn, Ni, Co, Mg, Ba, Al and Sn, and each of the water soluble inorganic salt and organic acid salt having a property to form a firm coating when it is uniformly dissolved in water and the resulting solution is applied onto a metallic material and dried.

69. (New) The lubricating coating forming agent according to claim 68 wherein the polyvalent metal salt of phosphoric acid is at least one salt selected from the group consisting of zinc phosphate, zinc iron phosphate and iron phosphate.

70. (New) The lubricating coating forming agent according to claim 68 wherein the average particle size of the particles of coated polyvalent metal salt of phosphoric acid is 30 μm or less, and the average particle size of the polyvalent metal salt of phosphoric acid is 20 μm or less.

71. (New) The lubricating coating forming agent according to claim 68 wherein the proportion of all the metallic soap coatings to all the particles of coated polyvalent metal salt of phosphoric acid is 1 to 30 % by mass.

72. (New) The lubricating coating forming agent according to claim 68 wherein the water soluble inorganic salt is at least one salt selected from the group consisting of an alkali metal salt of sulfuric acid, an alkali metal salt of silicic acid and an alkali metal salt of boric acid.

73. (New) The lubricating coating forming agent according to claim 68 wherein the water soluble organic acid salt is at least one salt selected from the group consisting of an alkali metal salt of malic acid, an alkali metal salt of succinic acid, an alkali metal salt of citric acid and an alkali metal salt of tartaric acid.

74. (New) The lubricating coating forming agent according to claim 68 wherein the proportion by mass of the total of the water soluble inorganic salt and the water soluble organic acid salt (B) to the particles of coated polyvalent metal salt of phosphoric acid (A), namely (B)/(A), in terms of solid matter, is within a range of 0.01 to 20.0.

75. (New) The lubricating coating forming agent according to claim 68 which contains a smectite clay mineral in such an amount that the proportion by mass of the smectite clay mineral (C) to the particles of coated polyvalent metal salt of phosphoric acid (A), namely (C)/(A), in terms of solid matter, is within a range of 0.005 to 0.5.

76. (New) The lubricating coating forming agent according to claim 68 which contains, as an auxiliary lubricating ingredient, at least one metal selected from the group consisting of an oil, a soap, a metallic soap, a wax and polytetrafluoroethylene in such an amount that the proportion by mass of the auxiliary lubricating ingredient (D) to the particles of coated

polyvalent metal salt of phosphoric acid (A), namely (D)/(A), in terms of solid matter, is within a range of 0.03 to 18.0.

77. (New) The lubricating coating forming agent according to claim 68 which contains a water soluble or water dispersible organic macromolecular compound having a weight average molecular weight of 1,000 to 1,000,000 in such an amount that its content in the resulting coating gets to be within 0.5 to 25 % by mass based on the whole dry coating.

78. (New) Metallic material for cold plastic working having on a surface thereof a lubricating coating formed using the lubricating coating forming agent according to claim 68.